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ARSENICAL PAPER-HANGINGS.[1]

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During the past year I have had occasion to give advice in a number of cases involving grave symptoms, of long and persistent continuance, and of a nature so masked as to puzzle, for a time, both friends and physicians; but which, from the history and the symptoms, joined with the surroundings which I found in each case, I believe to have been due to arsenical poisoning from wall-papers on living or sleeping rooms, which the patients had occupied for a longer or shorter time.

It will be remembered that the pigments used by manufacturers of arsenical wall-papers are composed very largely of arsenite of copper and of aceto-arsenite of copper or Schweinfurth green, the former containing fifty per cent. and the latter fifty-eight per cent. of arsenious acid, which dangerous elements are applied to the paper by size, giving but a feeble cohesion when exposed to the air or to the danger of attrition from various causes. Even the flock papers, which have been looked on as innocuous, often have a layer of arsenical pigment, which in time becomes equally dangerous.

The subject of arsenic-bearing wall-papers has been freely discussed in both home and foreign journals for the past twenty years; nowhere more fully or satisfactorily than in our own State Board of Health Report for 1872. Cases and series of cases have been given, some by physicians who have experienced the ill effects in their own persons, and all bearing a striking resemblance to those I have had under notice.

The symptoms in these cases have been of a composite character, affecting the system generally, with more marked evidences of disturbance in the digestive and respiratory systems, and with a strong tendency to neuralgic and mental disorder.

In connection with these cases I shall show specimens of paper from rooms which the patients have occupied, and a considerable number of others which have been offered for sale by manufacturers, and intended for domestic use. The former specimens offer the strongest evidence for the opinion I formed of the disturbing element.

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[1] Read before the Boston Society for Medical Observation.

The series of symptoms is very well described in their usual sequence by a non-professional writer in the *British Medical Journal* for July 22, 1871. Referring to a number of cases which occurred in his own family, he says, "First appeared irritation of the mucous membrane, causing diarrhœa and vomiting, with various other symptoms of severe gastric derangement, resulting in permanent indigestion; also incessant severe cold in the head, which in one instance lasted for several years without being touched by any remedy; ulcerated throats, with acute inflammation, resembling diphtheria and quinsy; severe spasmodic cough, spasmodic asthma, bronchitis, and congestion of the lungs; soreness of the mouth, lips, and tongue, which appeared as if scalded in patches; inflammation of the eyes and eyelids (the conjunctivæ being invariably bright red), in one case threatening absolute loss of sight; congestion and torpidity of the liver, with the various symptoms resulting therefrom; and severe bilious and feverish attacks. There was, in short, irritation of every organ. In many cases, if not in all, the action of the heart was weakened, and in some palpitation frequently occurred. There were pains in various parts of the body, especially across the shoulders, down the spine and limbs, also in the joints, which were often stiff and swollen; scaling of the skin, and irritating eruptions, which no remedy ever relieved except Turkish baths. The effects upon the nervous system were most remarkable, producing a thoroughly shattered condition; great irritability, depression, and tendency to tears, with unusual prostration of strength. . . . The list also includes giddiness, headache, acute earache, and neuralgia; bleeding at the nose; frightful dreams; hysterical attacks; faintness; cramps, rigor, and numbness of the limbs; rigid spasms and convulsions. The last symptoms developed in the worst cases were loss of memory and threatenings of paralysis, also spasms, with twitchings of the body and limbs."

CASE I. Mrs. A., a lady fifty-six years of age, in easy circumstances in life, of a peculiarly active and nervous organization, of regular habits of life, was exposed in her bed-chamber, for a number of years, to the influence of arsenic paper. She had been previously entirely healthy, never having had any illness other than temporary troubles of small moment. Menstruation ceased to occur within five years without any abnormal symptom, the critical period being only marked by the cessation of the monthly flow.

Twelve years ago she married and came to live in a home near an inland city. Her chamber was on the ground floor of a large house, and had been newly hung with a paper of a light green hue. The room was occupied only at night, most of the time during the day being spent in other parts of the house, and, in the summer months, in the open air. To this circumstance, of course, is due her freedom from trouble for a considerable period.

Three or four years after occupying the room, or perhaps a little earlier, she began to have a feeling of general malaise. The first thing she recalls is a sensation of exhaustion, which she then thought due to one or two severe falls, but which is now more satisfactorily explained. Being a person of strong will, she made every endeavor to throw off or resist this sensation; but it would as constantly return. It was especially difficult for her to rise in the morning, although awake at a very early hour. The debility increased as the illness went on. She would feel quite well and strong for a time, and would at once experience the sense of prostration on making any attempt at movement, and, at times, on any unusual mental exertion, making the duties of a housekeeper particularly onerous. She speedily increased considerably in weight, from about one hundred and twenty-five to one hundred and sixty pounds; this condition lasted for some months, and then gave place to emaciation.

At certain intervals afterward the various symptoms of the digestive, nervous, and circulatory systems, which I shall mention, appeared and increased in severity up to the time I saw her, in June, 1875. The precise date of the access of each symptom is unknown, but each had shown itself, either continuously or at intervals, for a number of years before.

I found her in bed, perfectly prostrated, hardly able to move hand or foot; with skin very dry and rough; hands and feet cold or cool to myself and to the patient. I do not recall either the pulse or the temperature, though both were duly noticed at the time. Emaciation was marked; a countenance naturally rosy had become sallow; tongue inflamed, dry, cracked, with brownish coat in centre; gums also dry and angry. The sensation of dryness was apparent to herself, with a feeling as if the mouth were lined with flannel. No sensation of dryness or pain in the throat or œsophagus. Nausea, often about ten P. M., and nearly always when she wakened, but not during the night, unless she happened to be up and about for any purpose. At times a pressure in the stomach; frequent thirst of an evening, seldom during the day; capricious appetite.

During her early years, at her home in Philadelphia, she had often had diarrhœa, but she had been free from it for some years. Two or three years ago it came on at intervals, its presence being ascribed to diet and the usual causes; of late it had been more marked, the discharges watery and painful. She had never noticed blood. No oppression in breathing; no catarrhal trouble, cough, or other noticeable pulmonary complication. Her eyes had for some time shown signs of weakness and congestion. They had previously been very strong. At last she could not open the lids at night without lifting them with her fingers. At the time I saw her there was marked conjunctivitis, as if from some external irritation. No headache, but an "aching, tired sensation" in base of the brain, which ran down the spine to the lumbar region. At times, during the past few years and never before, a tenderness in the neighborhood of the liver, which would pass away after a slight diarrhœa. Her temper was never irritable or much depressed, but her household duties seemed to weigh on her, and were more than ever a responsibility. A carbuncle or perhaps a large boil on the back was reported as having occurred three or four years before, otherwise no eruptions, carbuncles, or furunculi. The sleep was more easily disturbed than when in health, and she had often wakened chilly or feverish. The feet and legs, to the knees, were frequently cramped, and had been relieved by warm applications and friction.

The symptoms detailed had always been, to a certain extent, relieved during absence from home; but in about ten days after her return the exhaustion and other evidences of disease would recur, and soon be as bad as ever. The symptoms had been most speedily relieved on coming to the salt water at New York or Boston, and under such circumstances almost entirely disappeared. The air of Philadelphia was less beneficial, but no permanent relief was experienced as long as exposure to poison was renewed on her return home.

The marked symptoms in this case seemed to be of the mucous membranes and the nervous system, to be increasing in severity, alleviated by absence, but returning on fresh residence; and so apparently due to a local cause. There was no malarial influence in the neighborhood; the air, though somewhat damp, was pure and healthy; no imperfect drainage. On examining the paper of the room I found it heavily loaded with arsenic. The patient now recalls the fact that no room in the house was so difficult to clean as her bed-chamber, and servants had made similar remarks. She herself found it almost impossible, for some reason unknown to her, to remain in her room, from the sensation of extreme exhaustion.

CASE II. The husband of this lady had occupied the same room, but his frequent absence from home on business and his out-of-door life had given him less exposure. Previously healthy, he had, soon after his occupancy of the room, begun to have tonsillitis, with dry tongue and mouth, and finally these symptoms continued throughout nearly the entire winter. He increased very markedly in weight, became dyspeptic, and had a foul breath, with a general sensation of malaise. He at last occupied another room at night, and was at once relieved and has had no sore throat to this day.

CASE III. Mrs. B., an amateur artist, had in like manner a bright green paper on her studio. After spending some time in her room, in which she was occupied several hours each day, she would come out thoroughly exhausted; was very "logy," became bloated, and was generally running down. For some time she had had an ulcer on the face, which had not yielded to medical treatment. The library was hung with a green paper of a dangerous hue, and the bed-chamber with still another. A flock paper was also employed in some part of the house — where I do not know. The papers on the studio and chamber, as determined by analysis, are heavy with arsenic; that on the library contains a smaller amount, and a considerable quantity was found in the flock paper. The patient went to New York for some weeks, and remained while the paper was being removed and her house repaired. She speedily improved in health, the ulcer on the face took on a healthy action and was quickly cured, and the sensation of exhaustion disappeared.

CASE IV. Mr. B., the husband of this lady, being less exposed, suffered less, but he was for a considerable time the victim of conjunctivitis, which disappeared on removing the paper from the walls.

CASE V. The case of Mr. C. was very similar to that of the lady first mentioned. His case, however, was marked by more violent febrile manifestations and delirium, and he was for some time in danger of his life. One eye was lost by the sequelæ of conjunctivitis, and the other permanently injured. He was for a long time unable to sleep. A light-green paper was on his chamber and sitting-room. His removal from the house put an end to the reception of the poison. He is now much better, is recovering strength, flesh, and appetite, and his ability to sleep is now restored.

CASE VI. Mrs. C., the wife of the above, for the three years they had inhabited the arsenic-rooms, had had more or less sore throat, for which she was unable to account. During the first six months after leaving the rooms she was much better, and at the end of a year was entirely well and now has no trouble.

CASE VII. Mrs. D. had a green paper on her library and another on the dining-room. I tested both, and found much arsenic in the former and a less amount in the latter. The next day these papers were removed from the walls, and a tendency to dysenteric diarrhœa, which had caused much trouble, at once diminished, and the attacks have been much lighter. Two canaries had died in the library without known cause, except that they showed signs of poison.

CASE VIII. Mr. E. (not my patient), who had slept in a room with a bright-green paper for some years, was seriously ill with symptoms referred to the nervous system and digestive organs. I never saw the patient, but am led to believe the symptoms were of such character as to be due to arsenic. He went to Europe for a change, and another gentleman, who took the house furnished, desired me to examine the paper. I did so, and found it loaded with arsenic.

The paper in the case first mentioned was not removed from the wall until after the marked convalescence of the patient in another room, to which she had been carried. Three or four persons were occupied in the work. One man got a sore mouth, having been previously well, and knowing no reason to account for it; another had every symptom of a cold, and felt a general stiffness of his limbs; a woman was in the room for half an hour, and her throat, previously entirely well, became rough and remained so for some days. A paper-hanger in the same neighborhood remarked that his mouth was always sore when he put on green paper, and his men often spoke of their eyes becoming inflamed and their hands ulcerated.

I do not feel called on, in relating these cases, to enter upon the discussion of various points which naturally suggest themselves. The method of dissemination of the poison, the susceptibility of some persons to its influence and the immunity of others, and other points, have been often considered, and an opinion has been formed in the matter in the mind of every practitioner of medicine. One point, however, seems worthy of our attention, and cannot be too strongly urged: the necessity of sanitary measures to avert the evils arising from the use of arsenic in wall-papers and other articles of domestic and personal use; the duty of the physician to his patients and the community in warning them against the use of such articles, and the obligation incumbent on the state to enact and enforce laws for the protection of the people from dangers which we know to be insidious, but powerful for great peril to all those exposed to their influence.

It may be true in our land, where "liberty runs mad," that the view expressed by Dr. Draper, "that the rights of individuals and of industrial pursuits are deemed too sacred to allow of excessive restriction, and a prohibitory law to affect the manufacture or use of arsenical pigment would be of questionable force," a view in which, so far as this particular subject goes, I am inclined to disagree with him. Legislation with the object in view of preventing the use of arsenical papers has been employed in some of the more despotic nations of Europe, where the care of the citizen is considered of the utmost importance to the state. The case of the gentleman who returned to his house to find it in the possession of the sanitary police, engaged in removing a beautiful arsenical paper which he had just applied to his walls, is in point. The laws relating to slaughtering cattle and preparing meat for the market met with vigorous opposition a few years ago, but they are now looked on, even by the butchers themselves, as highly salutary, and no hindrance to private rights or emoluments.

The fact that the most beautiful, the most delicate, and the most easily manufactured green color is produced from arsenic will always offer a strong incentive to manufacturers of wall-paper, to painters, makers of cloth fabrics, confectionery, card-stock, and other materials in the arts.

As an adjuvant to legislation, or to take its place, if such a course be impossible, it seems incumbent on physicians to act as instructors to the community. I fully agree with Dr. Draper, to quote once more from his report, that "if there be awakened in the community some appreciation of the dangers which belong to the indiscriminate use of emerald green colors, there will be no need to invent methods of repression in behalf of the public health; for reasonable people, informed concerning the risks, will not be likely to test their own tolerance of arsenic or to subject their children to it. The demand ceasing, the supply will cease, and a correct taste in color will find its gratification in agents which possess no poisonous character." It is safer, however, to consider that a certain proportion of the community is *not* "reasonable," and that they are at once thoughtless and careless of the safety of themselves and of those around them. To gain the needed information the public requires frequent and often-repeated injunctions from those in whom they have confidence, and I feel it to be a duty of our state and local boards of health not to be neglected, to coöperate with physicians in extending a knowledge of the dangers of arsenic.

Arsenic *green* is a term which, it would seem, is sufficiently well understood by a considerable proportion of the intelligent members of the community. Large quantities of such papers are, however, still sold to go into the country and to those less careful of the hygienic condition of their households. It is less generally known that the presence of arsenic is not confined to green papers alone, and I show you this evening a number of specimens of wall-papers of various hues which may be looked on as very innocent in their outward appearance, but which I have proved by analysis to contain arsenic in considerable amounts. Many of them have a greenish hue, and in such the arsenical pigments have been used to tone down other colors. It is safe to consider that *all* wall-papers which contain arsenic, in any proportion whatever, are dangerous elements, in the light of modern sanitary hygiene.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY O. F. WADSWORTH, M. D.

Neuro-Paralytic Keratitis. — This subject has been reïnvestigated by Senftleben,[1] by cutting the trigeminus in rabbits, and his results agree entirely with the view of Snellen, that the keratitis is due solely to the fact that the loss of sensibility of the eye deprives it of its natural protection and exposes it to external injuries. So long as the eye on the side on which the trigeminus had been divided was protected by a cap of wire netting it remained sound, but when not so protected the characteristic keratitis ensued within ten or twelve hours. The first change observed was a circumscribed opacity of the cornea, varying somewhat in place, but generally nearer the anterior angle of the eye, never reaching at first the periphery; only some hours later did an opacity appear at the periphery and progress toward the centre. Microscopic examination at various periods after the commencement of the keratitis showed that the central opacity was non-inflammatory, but due to a necrosis of the corneal tissue; the later peripheral opacity was produced by the usual inflammatory immigration of white blood corpuscles.

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[1] Virchow's Archiv, Bd. 65.

It was evident that evaporation, by some regarded as an active agent in neuro-paralytic keratitis, had no influence, since the wire mesh-work, which did not check evaporation, yet afforded complete protection. Only in a few cases, when the animals had been confined in a narrow and dusty place, did a slight conjunctivitis occur, but that this was owing to the entrance of dust, etc., was shown by the rapid subsidence of the conjunctivitis when the rabbits were placed under more favorable conditions.

The view that trophic fibres accompany the trigeminus, and that their division renders the cornea less capable of resisting injury, is that one which has seemed to have most evidence in its favor. If this were true, equal injury to the two eyes should produce a much more severe effect on the side of the cut nerve. To decide this point Senftleben produced a variety of injuries on both eyes, and found that the insensible cornea, protected by the netting, suffered no more severely and healed as readily as the other. Even when the injury was severe enough to produce necrosis of a portion of corneal tissue, precisely similar to that which appeared on the side of the divided nerve when the eye was not protected, the effect was the same and the process of healing ran a parallel course in both eyes, the non-sensitive one being subsequently protected. The idea of the presence of trophic fibres in the trigeminus must therefore be abandoned.

Senftleben also states that the lower part of the trigeminus at the point where it is divided, in which part Büttner and Meissner located the trophic fibres, belongs to the second branch of the trigeminus, not the first. Moreover, in six cases in which he failed to divide this portion of the nerve, the characteristic keratitis followed exposure of the eye.

Sarcoma of the Iris. — Dr. Kipp[1] describes a case of white spindlecelled sarcoma, growing with broad base from the lower and inner quadrant of the iris, and projecting into the anterior chamber so as nearly to cover the pupil. The patient was a healthy man of thirty-six years. The tumor had been first noticed twelve years before, as a reddish nodule the size of a pin's head; had grown at first very slowly, but within the last month had more than doubled in size and caused occasional pain in the eye. Removal of the tumor, with the portion of iris to which it was attached, was effected through an incision in the sclero-corneal junction. Eighteen months later the eye was still free from disease. So few cases of sarcoma of the iris have been placed on record that each furnishes some welcome additions to our knowledge of the subject, and this case is especially interesting as the first which, after removal of the tumor without enucleation of the eye, has been observed long enough to give tolerable security against recurrence. Two cases treated in this way are briefly referred to by Arlt,[1] but they had been under observation only for five or six weeks after the operation, by no means long enough to justify an opinion as to return, and in Carter's[2] case of sarcoma of both irides there was recurrence within six weeks.

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[1] Archives of Ophthalmology and Otology, v. 1.

Color of the Macula Lutea. — The statement of Schmidt regarding the color of the macula lutea which was given in the report one year ago needs some explanation. In a recent paper Schmidt[3] repeats that on opening eyes enucleated during life or very shortly after death, the macula region presents the same reddish-brown color as it does during life with the ophthalmoscope; the yellow color seen later being the effect of post-mortem change. When, however, the fresh retina is removed and spread out in vitreous fluid, the color of the macula is seen to be yellow, somewhat darker in the neighborhood of the fovea; only the bottom of the fovea is reddish-brown. The darker appearance of the macula as seen with the ophthalmoscope or in the freshly opened eye is not due, as has been asserted, to a darker color of the choroidal pigment at this part, but to the absorption of light by the yellow pigment of the retina. When in a fresh eye the retina is carefully loosened from the choroid and slid along so that the macula region lies over another portion of the choroid, it presents quite as dark an appearance as in its original position, and the choroid of the macula region does not present any darker tone than elsewhere.

Neuritis Descendens. — The direct progression of inflammation from the base of the brain along the optic nerve to the eye has been anatomically proven only in very rare instances. Blessig's[4] case is therefore of interest. A peasant twenty-nine years old, without special cause, was attacked with violent headache, dizziness, and vomiting, and on the following day observed decrease of vision in the left eye. Four days later the cerebral symptoms had rather increased, there was still headache and vomiting, the whole left half of the skull was sensitive on percussion. Right, eye normal; left, nearly complete paralysis of oculomotor nerve, the optic papilla moderately swollen, its outline obliterated, near its border numerous radiating extravasations, vision $\frac{2}{5}$. Ten days from the commencement of the attack there was febrile disturbance, high temperature, much vertigo, mental faculties not quite clear. Right, eye still normal. Left, the oculo-motor paralysis complete, the ophthalmoscopic appearances little changed, the papilla still but little elevated, the extravasations rather more numerous, vision completely lost. The cerebral symptoms rapidly increased and the patient died thirteen days from the attack. The autopsy showed purulent basilar meningitis, chiefly on the left side, the ventricles slightly distended with turbid fluid. The left opticus from its exit from the chiasma to the sclera was half as thick again and harder than the normal right opticus. No fluid issued on incision of the nerve.

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[1] Handbuch der ges. Augenheilkunde (Graefe and Sarmisch), iii. 2.

[2] See Report on Ophthalmology, JOURNAL, May, 1874.

[3] Archiv für Ophthalmologie, xxi. 3.

[4] Monatsblätter für Augenheilkunde, page 420, 1875.

On microscopic examination the inner and outer sheaths were found nearly united by inflammatory change, and along the whole length of the nerve was a great increase of the interstitial connective tissue. The bundles of nerve fibres were much smaller than in the other opticus, but the connective tissue surrounding them was much increased and studded with numerous nuclei.

Blessig considers three points of importance as to differential diagnosis. First, the rapid loss of sight. While in a neuritis caused by the collection of fluid between the nerve sheaths it is the rule that an amount of vision, apparently in marked contrast with the ophthalmoscopic appearances, is retained for a long time, even months or years, it is to be expected that a much more rapid loss of vision will ensue when an inflammatory process involves the tissues between the bundles of nerve fibres.

Another point of distinction is the one-sidedness of the affection, for, unless tumor or some other special mechanical obstruction exist on one side, it is difficult to see how fluid from the arachnoid space should enter between the sheaths on one side and not on the other. Finally, the swelling of the papilla in true neuritis descendens never reaches so high a degree as in choked disk, while the latter does not appear so vascular, and early assumes a grayish-white color, suggestive of atrophy.

Influence of Corneal Opacities on the Production of Strasbismus. — Donders showed that convergent strabismus ordinarily depended on hypermetropia, and among the causes which assisted in overcoming the natural disinclination to double vision gave (1) congenital differences in the visual acuteness or refraction of the two eyes; (2) opacities of the cornea, in consequence of which one of the double images would be less distinct and therefore less disturbing. Hirschberg[1] calls attention to another way in which corneal opacities in certain cases aid to produce strabismus. If the rays of a pencil of light coming from a luminous point fall upon a convex lens of sufficiently small opening, they are united behind the lens at some place on the axis of the pencil. On a screen perpendicular to the axis, situated at the place where the rays unite, a distinct image of the point from which the rays issue is formed. If, however, the screen be situated before or behind the place of crossing of the rays, a larger blurred image is formed on it, and this image will be situated on the axis of the pencil only when the portion of the lens through which the rays pass includes and is equally distributed about its centre. Supposing now the case of unequal refraction in the two eyes, there would be formed on the retina of one of them an indistinct image of an object looked at, and if a corneal opacity covered one side of the pupil of that eye, the image on its retina would not only be indistinct but also laterally displaced; there would therefore be double vision. With such a state of things, and hypermetropia of the better eye, a double incentive to squint would exist. Increased convergence would, on the one hand, enable greater accommodation and sharper vision in the good eye, and, on the other, remove the image formed in the poor eye to a less sensitive part of the retina, where it would be less disturbing.

Trephining the Sclerotic in Glaucoma. — In certain cases of glaucoma, in which iridectomy cannot be performed or might aggravate instead of relieving the symptoms, Argyll Robertson[2] proposed to trephine the sclerotic in order to allow some of the fluid contents of the eye to escape, and that the new, lax tissue filling up the opening might act as a safety-valve to avoid recurrence of increased tension. He had performed the operation only four times, but with an encouraging degree of success. The opening was made at the upper part of the sclerotic, over the junction of the ciliary processes with the choroid. Finding that the instrument used by Bowman for conical cornea was inconvenient on account of the too great pressure required, he had employed an instrument consisting of a narrow steel cylinder with a shoulder about one twelfth of an inch from the cutting edge, the half-inch of the cylinder above the shoulder roughened to allow a grasp for the fingers. In his last two cases a flap of conjunctiva was turned up before applying the trephine. In the first case tension had been permanently diminished and vision slightly improved; it was necessary to enucleate the eye subsequently on account of sympathetic irritation of the other, due, however, to the original disease, not to the operation. Recurrence of increased tension in the second case was accounted for by the presence of a tumor in the eye. In the third case the operation effected relief of pain and tension. In the fourth case the worse eye was trephined and iridectomy done on the other. The result was good vision and removal of abnormal tension in both, but in the trephined eye there was diminished power of accommodation, probably owing to injury of the ciliary muscle by the trephine. Extravasation, which occurred in the third case, indicated a disadvantage of the operation. Possibly the sclerotic only might be penetrated, without wounding the choroid, and a more gradual relief of tension be effected.

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[1] Centralblatt, 1875, page 593.

[2] British Medical Journal, page 193, 1876.

LECTURES ON ALCOHOL.[1]

These lectures, though hardly fulfilling the promise of the lecturer (page 15) "to be plainness itself, and that not only in mode of expression but in matter of it," are yet a valuable contribution to the literature of this important subject. The author does not consider alcohol a food, since its freedom from the element nitrogen forbids the statement of "its being a constructive agent in the building up of the body." Dr. Richardson would also attribute its "fat-forming" properties more to the sugar that may be added than to the alcohol which holds the sugar in solution; or, to use his own words (page 103), "It does not certainly help to build up the active nitrogenous structures. It probably does not produce fatty matter, except by an injurious and indirect interference with the natural substances." The question in regard to the elimination and combustion of alcohol in the system is very concisely stated in the light of recent investigations: "If it will burn in the organism it will supply force, for it enters as the bearer of so much potential energy." Then (page 111), "If there be heat, and if there be product of carbon consumed in oxygen, then alcohol must rank as a heat-forming food." Carrying out this investigation, Dr. Richardson divides the "progressive stages of change of animal function" into four periods: (1) excitement accompanied with relaxation and engorgement of the capillary circulation; (2) excitement with muscular inability and deficient automatic control; (3) emotional excitement; (4) failure of heart's action and death. It will be noticed that he considers the effects only of a poisonous dose given at one time. The heat felt in the first stage is not due to the alcoholic combustion, but is a process of cooling, and the same sensation is experienced during the reaction from cold. The external temperature may be increased, but the internal temperature is reduced. During the subsequent stages the fall of the temperature continues, and is rapid during the fourth period. In his own words again (page 116), "An agent that will burn and give forth heat and product of combustion outside the body, and which is obviously decomposed within the body, reduces the animal temperature, and prevents the yield of so much product of combustion as is actually natural to the organic life, ... and at the expense of the oxygen which ought to be applied for the natural heating of the body." Therefore, "whenever we see an unfortunate person under the influence of alcohol, it is our duty to suggest warmth as the best means for his recovery."

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[1] *On Alcohol.* A Course of Six Cantor Lectures delivered before the Society of Arts. By B. W. Richardson, M. A., M. D., F. R. S., etc.

Dr. Richardson also discusses the dynamic influences of alcohol upon muscular work. He concludes his fourth lecture with these words: "Whatever good can come from alcohol, or whatever evil, is all included in that primary physiological and luxurious action of the agent upon the nervous supply of the circulation to which I have earnestly endeavored to direct your attention. If it be really a luxury for the heart to be lifted up by alcohol, for the blood to course more swiftly through the brain, for the thoughts to flow more vehemently, for words to come more fluently, for emotions to rise ecstatically, and for life to rush on beyond the pace set by nature, then those who enjoy the luxury must enjoy it — with the consequences."

It will not be wise to give more details of these lectures, yet one who reads them should remember that the subject is presented from one side, and not impartially treated by an unimpassioned man.

Dr. Anstie (in the *Practitioner* for November, 1873) says, "There is strong *à priori* probability that alcohol can afford available energy for bodily function," and to Dr. Anstie's researches Dr. Richardson appends great weight, so far as these may prove his side of the discussion. Now, Dr. Anstie (in the last paper by him on Alcohol, *Practitioner* for July, 1874) considers that it is "conceded that quite six hundred grains of absolute alcohol can be disposed of daily within the organism of an adult male without any perceptible injurious effect upon the bodily functions." No one should read these lectures in order to form an unbiased opinion, without reading the papers of Drs. Parkes, Dupré, and Anstie, all of which are exceedingly interesting as well as instructive.

Finally, we must pass an unfavorable criticism upon the undignified temperance harangue which introduces the pamphlet of Dr. Richardson to the American public. The cause of temperance has too long been injured by intemperate, one-sided tirades like this of Dr. Parker. A.

THE GEORGIA STATE BOARD OF HEALTH.[1]

THE State Board of Health of Georgia was organized June 9, 1875; therefore this, the first annual report, presents the proceedings of the board during a period of only four months, when the machinery was new, the friction greatest, and the critics most observant. We feel bound to remark at the beginning that the new health commission of Georgia has done itself great credit in its initiatory stage, and we are inclined to attribute the success mainly to the composition of the board. The energy of the secretary, a medical gentleman, appears to have been seconded heartily by the zeal and vigor of the nine other physicians who comprise three fourths of the members. Evidently, these men have entered upon their new work with an enthusiasm which is sure to be effective in promoting the sanitary welfare of the people of their State.

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[1] *First Annual Report of the Board of Health of the State of Georgia, for the year ending October* 12, 1875. Atlanta: R. A. Alston. 1876.

Beside the general report of the board and the record of its proceedings, we have, in the thick pamphlet before us, some special reports upon subjects pertaining to public hygiene. These papers were written by members of the board, and most of them have more than a local interest. They include the discussion of sanitary administration in its general aspects, school hygiene, the influence of trees on health, the sale of poisons as medicines and in the arts (including arsenical colors in wall-papers), prison hygiene, and the prevention of small-pox. All of these papers are interesting and instructive; if we were to mention the one which appears to us to be especially original, we should name the report by Dr. Cromwell on the influence of trees on health, a contribution showing extended research as well as intelligent observation.

The registration of vital statistics is made a department of the board's administration. This important part of the work has hardly begun to be put into practical operation as yet, and the results are meagre, but the methods adopted appear to have been formed according to the best models.

If this report is a safe guide by which to shape a prediction, we anticipate much excellent fruit from the labors of the Georgia board of health. The enterprise thus shown by a State just recovering from the effects of the civil war ought to excite the emulation of more prosperous communities which are slow to recognize the utility of permanent commissions designed in the interests of public hygiene.

HUTCHINSON'S ILLUSTRATIONS OF CLINICAL SURGERY.[1]

So long an interval has elapsed since the appearance of elegant plates on pathology and surgery, which at one time formed such a prominent feature of medical libraries, that we confess ourselves to be somewhat startled by the formidable display which a busy London surgeon has found time to indulge himself in. With the great clinical facilities offered at the present day to students and practitioners in surgery, an attempt to instruct by means of large colored plates would seem like a return to the uncouth resources of the last century. Mr. Hutchinson, however, cannot be said to have laid himself open to any such reproach. The collections of drawings which have been accumulating during the past twenty years, and of which two fasciculi have thus far appeared are intended to illustrate rare and interesting cases in the practice of surgery and to impress forcibly upon the mind certain important clinical features of disease. The first fasciculus meets these indications in a most satisfactory manner, and we think there are few who will deny that Mr. Hutchinson has here trodden a new field, or, what is perhaps fully as interesting, has gone over old ground in the light of modern science.

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[1] *Illustrations of Clinical Surgery.* Consisting of Plates, Photographs, Wood-cuts, Diagrams, etc., with Descriptive Letterpress. By JOHN HUTCHINSON, F. R. C. S. Philadelphia: Lindsay and Blakiston. 1876.

The first case is a frontal encephalocele, a rare form of disease, and likely to be mistaken for nævus. The similarity of different cases of this variety of encephalocele is, however, very great, as is shown by several illustrations and by a few clear, concise explanations in the text. The author warns surgeons against operative interference in these cases. We have, however, seen one case successfully treated by ligature. Plate II. is an ivory exostosis of the orbit; the accompanying text gives one, in a few sentences, a clear idea of the seat, growth, and treatment of the disease. The subject of the next illustration is rodent ulcer. We regret that the general ignorance of physicians in regard to the pathology of this disease has not prompted the author to dwell somewhat more fully upon its different phases. The great deformity in well-advanced cases has been selected as the point to be illustrated. It would have added much to the value of the account had the earliest stages of the disease been included, when we find little more than an insignificant wart or ulceration upon the nose or cheek, and yet an appearance so characteristic that we may safely predict a formidable loss of substance, should the disease be left untouched. We must find some fault with the coloring of this plate. The surrounding skin has been tinged by a red halo, giving it an inflamed look which is not characteristic; a distinguishing feature between this and other forms of ulceration, as lupus, is the perfectly healthy character of the contiguous skin. Mr. Hutchinson, although recognizing it as a form of cancer, does not classify it as a variety of epithelial cancer, as is done by German writers. The succeeding illustrations, which carry us into the second fasciculus, are devoted to the different varieties of chancres, which subjects will prove interesting in light of the recent discussion in London on syphilis, in which Mr. Hutchinson took so prominent a part. Space will permit us to allude to but one other subject. Plate VII. contains two portraits of cases of hydrocele of the neck, and is a beautiful specimen of the high standard of these illustrations. The view that these growths originate from the lymphatic, giving rise to the term lympho-angeioma, is not alluded to by the author. The literary portion of the work is deserving of no small praise. Its brevity entices the reader, while its conciseness gives him an ample sketch of the subject treated. Although the American publishers' names are upon the covers, the clear type bespeaks its English origin.

FILTH-DISEASES AND THEIR PREVENTION.[1]

The report of Mr. Simon, of which we have here the reprint, has already received such an extended notice in the JOURNAL[2] that it is scarcely necessary to do more than to record our hearty appreciation of the spirit which prompted the State Board of Health to give to that valuable sanitary document an opportunity for wide circulation in this country. Mr. Simon is unquestionably in the foremost rank of sanitary authorities, and whatever issues from his pen is sure to carry great weight. His writings are characterized by a degree of deliberation and by a conscientious regard for the truth which stamp them as the work of a master. We most cordially commend the volume before us to the perusal of all who are interested in sanitary reform. This beautifully printed American edition is a timely reproduction of an exceedingly valuable contribution to the literature of public hygiene.

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[1] *Filth-Diseases and their Prevention.* By JOHN SIMON, F. R. C. S., F. R. S., D. C. L., Medical Officer of the Privy Council and Local Government Board of Great Britain. First American Edition, printed under the Direction of the State Board of Health of Massachusetts. Boston: James Campbell. 1876.

[2] Report on Recent Progress in Public Hygiene, September 30, 1875, page 387.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

EDWARD WIGGLESWORTH, JR., M. D., SECRETARY.

MARCH 6, 1876. *Arsenical Paper-Hangings.* — **DR. F. H. BROWN** read under this title the regular paper for the evening.[1]

DR. A. H. NICHOLS thought that if sellers of arsenical papers were held responsible for all damage accruing from the use of such papers, it would equal the beneficial effects of a preventive law. Such a case is now on trial.

DR. LINCOLN exhibited a green tarlatan lamp-shade, and Dr. Brown stated that poisonous effects *within a few hours* had been reported as due to the use of such shades.

MR. S. P. SHARPLES, State Assayer, showed some arsenic-colored paper for confectionery. There was enough of the drug in a square inch of the paper to poison a child. Such paper is used for bonbons, for boxes, for wrapping lozenges, etc. It is perfectly possible to produce the same colors by other means, and in New York the sale of the arsenical colors has been forbidden by law. By the laws also of Massachusetts the sale of arsenic is forbidden, except upon the prescription of a physician, and all that is needed is an amendment to prevent the sale of such papers, namely, to punish such sale by a fine of not more than one hundred dollars, and the court to order the articles to be destroyed. Mr. Sharples added that Scheele's green (arsenite of copper) had not been in the market for over sixty years, the more brilliant aceto-arsenite having taken its place.

DR. CHADWICK held that carpets and ladies' dresses ought also to be included in Mr. Sharples's list, which was assented to by Mr. Sharples. Dr. Chadwick stated that out of all those specimens of the bluish slate color, at present in fashion, which had been examined by him, there was not a single one which did not contain arsenic, nor could he find in the whole city any such color which was not arsenical. He cited three interesting cases of exposure to the influence of arsenic. A yellow paper, upon the walls of the chamber of a pregnant lady suffering from dyspnœa in paroxysms, was found full of arsenic. The paper was removed, and the patient speedily recovered without other treatment. In a second case, a lady was troubled with headache daily upon awaking in the morning; the wall-paper, which contained arsenic, was removed and the headache never returned. The third was a person who never showed any symptoms of poisoning although the wall-papers all showed, upon testing, the presence of arsenic. The case was then cited of two ladies upon whose whole bodies an eruption appeared whenever brown, red, or blue stockings were worn. [A subsequent examination has shown that these stockings did not contain arsenic, and the eruption was therefore due to the presence of some other coloring matter.]

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[1] Published in this number.

Professor Watson had seen a case where the cutaneous eruption was the principal and almost the only symptom. The wall-paper was removed, and the patient rapidly recovered.

Mr. Sharples spoke of a manufacturer of arsenical colors, who had to relinquish the business three weeks after undertaking it. His whole health had given way, and yet after leaving the manufactory he at once recovered.

Dr. Hildreth quoted Wood to the effect that arsenic is often found in the urine of acute cases of arsenical poisoning, but stated that he had had acute cases which did not show it.

Dr. Draper considered preventive laws necessary. The workmen are often poisoned in paper manufactories, so that they even have their own name for the disease. Abrasions become ulcers; catarrh, diarrhœa, etc., occur. Dr. Draper quoted a case of two children, sleeping for months in a room with much arsenic loosely applied to the wall-paper, who experienced no evil effects.

Dr. Wigglesworth said that an excellent example of such ulcers could be seen in the Dermatological Cabinet of the Warren Museum at the Harvard Medical School. The patient entered the St. Louis Hospital in Paris for treatment, went out perfectly cured, returned to the same trade as before, working in arsenic, and within six weeks was obliged to reapply to the hospital for treatment, the hands and fore-arms being in the condition represented by the specimen of the disease referred to.

Dr. Jeffries commented upon the fact that the inhalation of small amounts of arsenic should produce such effects, while the much larger amounts administered by the stomach do not, as the rule. Idiosyncrasies exist, and one patient of his had been poisoned by two drops of Fowler's solution, while others had by degrees reached doses of one and a half grains per diem. Dr. Jeffries regarded arsenical poisoning as more severe in its effects upon the system than is commonly supposed. There may be irritation of the whole intestinal tract, or complete prostration of the nervous system, or constant dyspepsia. One patient suffered from neuralgia and malaise on warm days, then gradually broke down, and severe dyspepsia set in. This condition passed slowly off, but even after recovery the patient seemed to break down more readily than other people, and from lesser causes than before the attack. Dr. Jeffries had known cases where the patient seemed never to outgrow the whole trouble; though the symptoms were relieved, there was yet perpetual malaise and exhaustion. The prognosis should therefore always be a guarded one.

Mr. Sharples alluded to some cases of arsenic eating which had been investigated by Professor Clarke, where six grains of white arsenic were consumed daily, and the health of the consumers was disturbed only when the arsenic was discontinued.

Dr. Jeffries had known as much white arsenic as would cover a five-cent piece to be taken at a dose.

In answer to Dr. Green, **Dr. Fitz** stated that arsenic, like phosphorus, could in toxic doses give rise to acute nephritis.

Dr. Wigglesworth referred to some recent statements of Dr. Knapp before a meeting of German naturalists and physicians at Graz. Dr. Knapp himself saw a man, who had taken arsenious acid the day before, take four and a half grains, and also, on the following day, five and a half grains without injury. A director of an arsenic factory was said to have by degrees reached a dose of twenty-three grains. In Upper Styria, foresters, hunters, and others, even women, are addicted to this habit. They allege that it assists respiration, has an abortifacient action, protects from disease, and improves the personal appearance. Dr. Knapp saw a healthy man of seventy who had taken arsenic for forty years, and heard of one over eighty years of age. He met no cases where the health seemed to have been injured by the use of the drug. The largest dose Dr. Knapp had ever seen taken at one time was fourteen grains. The doses taken are small at first and increased by degrees. They are taken at intervals of from two days to a fortnight.

Mr. Sharples submitted a project for obtaining legislative action in regard to restraining the sale of arsenical colors, and the society appointed Drs. Brown, Chadwick, and Draper a committee to agitate the matter.

Foreign Body in the Eye. — **Dr. Wadsworth** showed the specimen. A boy ten years of age, exploding a percussion cap by striking it with a stone, was struck by a fragment in the right eye. A week after the injury the eye was painful, with deep seated congestion around the cornea. There was a cicatrix near the centre of the cornea, some two lines long, to which the iris was attached, and the lens was cataractous. Enucleation was advised, but was not performed until three weeks later, the eye meantime continuing irritable and congested.

On opening the globe the vitreous was found to be almost wholly absorbed; the retina separated from the choroid by a bloody fluid, folded together, and attached only at the ciliary processes in front of the entrance of the optic nerve behind, and at a spot some three fourths of a line in diameter a little to the inner side of the nerve. The latter attachment was evidently of inflammatory origin and was in direct relation with the sclera as well as the choroid. The altered retina here for a distance of some one and a half lines had the appearance of a firm whitish cord around the attached end of which the choroid rose slightly to embrace it. The posterior surface of the sclera at this place showed a small darkish spot, where it was somewhat thinned.

A piece of copper percussion cap one line wide and two and a half lines long was inclosed loosely within the separated retina. From the appearances at the place of attachment of the retina and the position in which the copper was found, the latter must have penetrated to the rear of the eye, wounding the retina and choroid, partially perforating the sclera, and then rebounding into the vitreous. Subsequent inflammatory changes caused absorption of the vitreous and consequent separation of the retina, but before the retina became separated, exudation at the wounded point had firmly fastened it there to the sclera and choroid.

Poisoning from the Strong Tincture of Aconite Root. — Dr. Stedman reported the case. It was due to the administration of one drachm of the strong tincture, the symptoms appearing within five minutes from the exhibition of the drug.

Poisoning from Quinine. — Dr. J. J. Putnam related a case of poisoning from two to three grains of quinine. It occurred whenever the drug was administered. The symptoms were swelling of the lips and tongue, with redness of the face and neck.

Case of Abscess of the Brain. — Dr. J. O. Green reported the case, but reserves it for publication.

Dr. Stedman had seen a child suffering from chills, high fever, and severe shooting pains, suggesting the formation of pus (inside or outside of the skull uncertain), and had proposed opening the mastoid cells. It was not done, the child died, and the mastoid cells were found full of pus. This extended also down the sheaths of the jugular veins. He, with Dr. Bolles, had seen another case where the same symptoms were present. The mastoid cells were opened, no pus was found; the nearly moribund child died some two hours after the operation.

Case of Functional Disorder of the Brain. — Dr. Fisher spoke of the difficulty sometimes experienced in distinguishing functional from organic cerebral affections. He mentioned the case of a lady who presented symptoms as follows: severe pain in sub-occipital region, which was temporarily relieved by massage at the hands of Dr. Graham; semi-consciousness and difficulty in expressing her ideas, and at times stupor; great debility and loss of locomotive power; closure of the left eyelids, with dimness of vision in left eye. There was at no time much fever, but a pulse ranging from 65 to 75 per minute. Temperature from 97½° to 100°. Urine acid with heavy deposit of urates; no albumen. Tongue thickly coated at times, and occasional attacks of vomiting. There were evidences of a rheumatic diathesis.

A diagnosis was made of functional disorder due to long-continued anxiety, with increasing nervous exhaustion, and perhaps rheumatism affecting the membranes of the brain. Dr. Ellis confirmed this diagnosis, and the improving condition of the patient seems to justify it.

Dr. Langmaid referred to the efficacy of continued doses of iodide of potassium in the enlarged joints of rheumatism.

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THE CATALOGUE OF THE NATIONAL MEDICAL LIBRARY.

Members of the medical profession who have not personally inspected them will find it hard to realize the importance and great value of two collections at Washington largely formed since the war. The Army Medical Museum, which owes its conception and growth to the intelligent labors of scientific men, members of the medical staff of the army, is second to none of its kind in the world, and the National Medical Library is surpassed by but very few in Europe.

The collection, hitherto known as the Library of the Surgeon-General's

Office, is very largely due to the labors of Dr. John S. Billings, U. S. A., under the direction of Surgeon-General Barnes. Peculiarly fitted for his duties by culture and inclination, as well as by his extensive researches in medical bibliography, Dr. Billings has accumulated at Washington a collection of which the medical profession may well be proud, and which will prove of inestimable value to those who desire to make careful investigations in medical science.

In 1865 the Library of the Surgeon-General's Office contained eighteen hundred volumes; in 1872 it had increased to thirteen thousand volumes, and now it numbers some forty thousand volumes and about the same number of pamphlets. It is essentially the medical section of the library of Congress. Large as this number may appear to those who are not familiar with the amount of literature on the subject, it is only about one half of what such a collection should contain in order to place the writers of this country in such a position as regards means of reference to the literature of medicine as it is desirable they should occupy.

In making this collection it has been the aim of the librarian to make it a thoroughly practical, working library. It is especially rich in works illustrating the history of medicine, in monographs on the various branches of medical science, in its files of periodicals from all parts of the world, and in pamphlets and monographs which all who are acquainted with bibliography know to possess equal if not greater value than more pretentious works.

To render this library available Dr. Billings, in 1872, issued in one volume, quarto, a catalogue of the works then in his charge, and another in 1874 in three magnificent volumes. Two volumes of the latter issue embrace a catalogue of authors, giving with the name of each a full title of each book; the third volume is devoted to those works issued anonymously, to transactions, reports, and periodicals. It is the present intention of the librarian to publish a catalogue in five volumes of one thousand pages each, which cannot fail to be of immense value to all who are interested in the advancement of medical literature, namely, to incorporate with the catalogue by authors one by subjects, giving reference not only to bound books on the various branches and their minutiæ, but to separate articles in transactions of societies, in medical periodicals, and other publications. The value of such a collection can be appreciated by those who have examined the bibliography of cholera, drawn up by Dr. Billings and appended to the recent report on that disease issued by the War Department. It is sufficient to say that the librarian desires to do the same for the whole field of medicine that he has already accomplished for cholera.

A sample of the proposed work, entitled a Specimen Fasciculus of a Catalogue of the National Medical Library, under the direction of the Surgeon-General, U. S. A., at Washington, D. C., is now before us. It is but a specimen of what has already been done in manuscript, and which only awaits the proper appropriations to be put in print and placed in the hands of the medical men of the country. To the subject of the abdomen, for instance, thirteen quarto pages, much of it in fine print, are devoted under the sub-heads, abscess of, anatomy and physiology of, exploration of, etc., and in this list is included nearly all that has been written on the subject, either in bound works or in the various periodicals.

Medical bibliography, we fear, can hardly be said to have made such gigantic strides in the past century as have been witnessed in the other branches of science and literature; but we have evidences all around us, in Germany, in England, and in our own country that it is taking a more important and honorable stand; and that writers and earnest, thorough students of medical lore are every year becoming more numerous and more persevering. Such men, and all who seek the true advance of medicine, must welcome the publication of a work which will lay open the field of medicine and the investigations which have already been made. It now becomes the duty of all medical men, the country over, to strengthen the hands of the surgeon-general and the librarian by assuring members of Congress, who will shortly be called on to make the appropriations, of the great value of the work which has already been done, and of the great advantage of opening more freely to the medical profession the stores of wealth which so important a collection as the National Medical Library offers.

MEDICAL NOTES.

— In a paper published in *The Clinic* of April 15, 1876, Dr. D. H. Jessup protests against the use of the abdominal bandage after delivery. Its advocates have recommended its use for the purpose of restoring and preserving the woman's shape, of affording a feeling of comfort, of preventing flooding, of promoting contraction of the uterus, of preventing after pains, etc. The writer affirms that no one of these purposes is accomplished; that the effect of pressure on the recently emptied and tender uterus is to produce irritation, and thereby excite after pains, so that often the patient loosens the bandage herself and thus lessens her distress. Another objection to the binder is that it disturbs the normal relations of the organs compressed. The compression also interferes to some extent with the process of uterine involution. For these and other reasons of a similar character the writer expresses the hope that the time is not far distant when the use of the obstetric binder shall be discontinued.

— In a lecture published in *The New Orleans Medical and Surgical Journal* for March, 1876, Dr. LeMonnier in answer to the question, "Have we a sure sign of death?" speaks as follows: The Marquis d'Ourches, a noble-hearted Frenchman (who had been twice very rich and once very poor), fully appreciating the gravity of *premature inhumations*, bequeathed the sum of 25,000 francs ($5000) to be distributed as follows: 20,000 francs ($4000) to the discovery of a sure and simple means of determining death; this means to be so simple that the *poor uneducated countryman might apply it.* The remaining 5000 francs ($1000) to the discovery of scientific means.

The contest was open to the world. Contributions from candidates came, not only from Europe, but from the United States (Chicago), China, and Asia, showing how great was the interest taken.

The result was that the prize of five thousand francs for the discovery of scientific means was divided as follows: five hundred francs ($100) to the discoverer of the sign which consisted in the difference existing in the *cauterization* of the pulp of the fingers during life and after death. During life blisters are formed, containing serosity; after death they contain steam. A second prize of five hundred francs to the discoverer of that *grayish* or *dusky* spot which shows itself, prior to decomposition, first at the external portion of the sclerotic, prior to its total invasion. As positive a sign of death as this one is the *general discoloration of the fundus of the eye after death.* During life it is of a dark red color, and after death of a yellowish white. A third prize of two thousand francs to the author of researches made on the *livid patches* found after death. The author concludes that they are a sure sign of death, as they were found in every case on fifteen thousand cadavers. Another important fact is that they appear shortly after death. Finally, two prizes of one thousand francs each, for researches on the *temperature* after death. The lowest temperature compatible with life has generally been supposed to be a fraction over 54° F. (30° C.), until last year, when a woman was brought to the Pitié Hospital (Paris), in the wards of Dr. Michel Peter. She was frozen unto death, with a temperature of 46° 8′ F. (26° C.) only, and yet by artificial heat she was recovered. This is the only case on record with such a low temperature where life was saved.

No one proved competent enough for the prize of 20,000 francs. Professor Weber, of the chair of medical jurisprudence at Leipsic, obtained a very honorable *mention* for his easy means of recognizing death. His theory was, that if a few hours after death any portion of the skin was rubbed with a wet brush, it infallibly assumed a parchment-like appearance. He reported this as an infallible means of recognizing death; unfortunately it did not prove to be so in the hands of the judges, or he would have obtained the 20,000 francs prize.

This does not mean, gentlemen, that prior to this competition no positive signs of death existed. We have many of them, too numerous to be mentioned here.

— In a recent number of the *Lancet* Dr. David Ferrier makes an interesting communication on How to Cure a Cold in the Head. Recognizing the favorable action of bismuth in gastric catarrh, he conceived the idea of employing this remedy in the form of snuff for the relief of the symptoms of coryza, to which malady he is a frequent victim. He uses a powder composed of the following ingredients: hydrochlorate of morphia, two grains; powdered acacia, two drachms; trisnitrate of bismuth, six drachms. On the appearance of the first symptoms of a cold in the head he uses the powder freely applied to the nose like a pinch of snuff. The remedy has never failed to relieve him completely within a few hours, and several of his confrères who have tried it speak warmly in its praise. The powdered acacia serves not only as a vehicle for the other ingredients, but forms a coating to the Schneiderian membrane, contributing greatly to the relief of the irritation.

— Dr. Richardson, says *The Medical Press and Circular*, of April 5, 1876, recently delivered a lecture on the Mosaic Code and Vitality. Some curious statistics were brought forward. In Prussian Germany still-born children numbered one in ninety-seven Jews, forty-seven Catholics, and forty-two Protestants. Half the Jews at Frankfort reached fifty-three years; half the Christians succumbed at thirty-six. Three reasons had been assigned for the high vitality of the Jews: (1) an innate excess of vital resistance; (2) the observance of the rules of health laid down in the Pentateuch; (3) the Jews have followed, either under the influence of necessity or from natural prompting, a better life in all that relates to the maintenance of a healthy physical existence. There was no physical or anatomical superiority of the Jews over other races. In some respects they were inferior to Saxons and Celts, but they had less hereditary tendency to diseases such as scrofula, consumption, and rheumatism. Coming to the second cause, the influence of the Mosaic sanitary code could scarcely be overrated, and its provisions formed a marvelous collection of sanitary rules.

A great advantage was doubtless gained in the early ages by abstaining from the flesh of animals which fed on garbage, and at the present time those who strictly adhere to the principles of their religion refuse to touch food which may by any possibility be diseased or decomposed; whilst such food is freely partaken of, or even sought for on account of its cheapness, by the lower class of other persuasions. On this score alone a large number of young Jews who would otherwise succumb to diarrhœa and its effects live to swell the nember of those who lived beyond the fiftieth year.

Among the causes of the third category Dr. Richardson mentioned the comparative immunity from hard physical labor. He referred also to their ablutions and habits of cleanliness entailed upon them by their religion. In the matter of cleanliness, however, the lowest classes of Jews are little if any better than their neighbors.

There appear to be these causes for the longevity of the Jews: (1.) Abstinence from decomposing food. (2.) Abstinence from alcohol. (3.) Freedom from syphilis. This freedom from syphilis may in great part account for the rarity of abortions and still-born children among the Jews.

BOSTON CITY HOSPITAL.

MEDICAL CLINIC.

[SERVICE OF DR. HALL CURTIS.]

Typhoid Pneumonia. — I. E. S., domestic, twenty years old, entered hospital February 17, 1876. Mother died with phthisis. Patient always well till one week ago. Since then has felt weak, with pain and soreness in bones. No appetite. Took to her bed yesterday. Now complains of severe headache and pain in left breast; sleepless; no cough. Temperature 99.9°; pulse 92; respiration 54.

February 18th. Dyspnœa well marked. Physical examination shows flatness over left lower lobe; bronchial breathing, and fine crackling râles throughout area of dullness. Cotton jacket. Ten grains of Dover's powder at night. A. M. Temperature 99°; pulse 92; respiration 55. P. M. Temperature 100.8°; pulse 108; respiration 37.

February 19th. Slept well. Less dyspnœa. A. M. Temperature 99.2°; pulse 88; respiration 33. P. M. Temperature 99.5°; pulse 82; respiration 20.

February 20th. Dullness over lower half of left lung. Bronchial respiration. No râles. Face livid. A. M. Temperature 98.2°; pulse 75; respiration 18. P. M. Temperature 99.6°; pulse 113; respiration 28. Four drachms of brandy and one ounce of soda-water every hour; if pulse flags, five grains of carbonate of ammonia as occasion requires.

February 22d. Temperature 98.5°; pulse 100; respiration 24. P. M. Temperature 98.5°; pulse 93; respiration 22. Complains of pain in right thigh. Sleepless night; profuse perspiration; irritable stomach. Brandy omitted. Milk diet and wine whey.

February 24th. Feels better and looks so. No cough. Tongue cleaning. Slight dullness; diminished respiration; no râles. The temperature is, however, A. M., 100°; P. M. 100.2°.

February 25th. Headache. Guarana, thirty grains.

February 29th. Headache continues. Temperature: A. M. 99.5°; P. M. 100°.

March 2d. Respiration clear through back. Headache persistent. Patient weak. One grain of quinine three times a day. Temperature: A. M. 99°; P. M. 99.5°.

March 4th. Headache still continues. Temperature: A. M. 101°; P. M. 102.5°. Mustard to nape of neck.

March 5th. Temperature 101°. At 3.30 P. M. sharp epistaxis came on, but was checked. It recurred violently at 6.30 P. M., when ergotine was injected subcutaneously, and the nares were plugged anteriorly and posteriorly. Free vomiting, and purging of blood. She was delirious, tossing in bed, refusing stimulants by mouth and unable to retain them by the rectum. Brandy was repeatedly injected under the skin, but reaction did not take place, and she died at 1.45 A. M.

II. F. W., twenty-eight years old, laborer, entered hospital March 2d. Has a family history of phthisis and heart disease. Always healthy till present sickness. Three weeks ago was exposed to cold; had rigors, followed by sharp pain over chest. Has had diarrhœa for some days, with dyspnœa, cough, and scanty expectoration. He complains of pain at ensiform cartilage and over right chest.

March 3d. Physical examination; no perceptible difference on percussion. Mucous râles base of left back. Tepid sponging and the following mixture, one drachm three times daily (the hospital fever mixture):

℞ Liq. ammoniæ acetatis,
Spts. etheris comp.,
Spts. etheris nitrici . . . . āā ℥ i. M.

Temperature: A. M. 103.5°; pulse 108; respiration 33. P. M. Temperature 105.2°; pulse 114; respiration 28.

March 4th. Severe pain, extending from ensiform cartilage to right axilla. Delirium and severe diarrhœa. Omit fever mixture. Three ounces of brandy three times daily. Five grains of quinine three times daily, in injections of starch and opium.

March 6th. Dullness. Bronchial breathing and subcrepitant râles through right front and back. A. M. Temperature 104.8°; pulse 120; respiration 38. P. M. Temperature 104.6°; pulse 112; respiration 40.

March 8th. Weaker. Subsultus. A. M. Temperature 102.8°; pulse 125; respiration 44. P. M. Temperature 105°; pulse 133; respiration 49. Died 10.45 P. M.

III. H. J., twenty-three years old, hack-driver, entered March 7th. His family history is good. He has usually been in very good health, though he had an attack of pneumonia when young. He has a strong physique, but during the winter has been much overworked. Three weeks ago he took cold, and cough became troublesome; this has much increased during the past few days, with viscid, blood-stained sputa. Any exertion is followed by epistaxis. Pain in right side and back is severe, and increased by pressure. Constant headache, with delirium. P. M. Temperature 104°; pulse 108; respiration 44. Ordered milk diet, sponge bathing, and the hospital fever mixture, one drachm three times daily.

March 8th. Want of tone through right front. Sibilant râles through right front and both backs. A. M. Temperature 102.8°; pulse 116; respiration 44. P. M. Temperature 103.8°; pulse 124; respiration 38.

March 9th. Right front tympanitic, with crepitant râles in lower third. Right back dull, with bronchial respiration, sibilant and occasional crepitant rales. A. M. Temperature 103°; pulse 111; respiration 32. P. M. Temperature 103.2°; pulse 116; respiration 32.

March 10th. A. M. Temperature 102°; pulse 112; respiration 30. P. M. Temperature 105.5°; pulse 114; respiration 40. Delirium and jactitation. Takes milk very freely.

March 11th. Had a better night. A. M. Temperature 98.6°; pulse 84; respiration 24. P. M. Temperature 97.8°; pulse 88; respiration 26.

March 14th. Improvement continued. Respiration now normal.

April 6th. Discharged, well.

IV. W. D., twenty-four years old, teamster, entered March 8th. He has always been well till two weeks ago, when, after exposure, cough came on, without expectoration, accompanied with severe pain in chest. Four days ago he awoke with severe headache and pain all over body, with rigors and vomiting. The cough increased, with thick, bloody expectoration and dyspnœa. He now complains of pain in left chest on full inspiration. Cough not very severe. Face flushed. Skin hot and dry. No appetite. Constipation. P. M. Temperature 103.2°; pulse 94; respiration 28.

March 9th. A. M. Temperature 100.8°; pulse 90; respiration 26. P. M. Temperature 104.1°; pulse 100; respiration 28.

March 10th. A. M. Temperature 102.6°; pulse 100; respiration 30. P. M. Temperature 103.4°; pulse 108; respiration 36. Dullness in lower half of left back. Bronchial respiration; subcrepitant râles. Expectoration abundant, viscid, of greenish color. Flaxseed jacket-poultice covered with oiled silk placed around chest; changed night and morning. Dover's powder, ten grains, at night. One eighth of a grain of tartar emetic three times daily.

March 11th. Delirious during night. Diarrhœa. Omit antimony. Three ounces of brandy three times daily. Milk diet. He complains of the poultice, which is changed for a jacket of cotton batting. A. M. Temperature 99.8°;

pulse 120; respiration 28. P. M. Temperature 101.4°; pulse 120; respiration 32.

March 13th. Vigilance and delirium. Great prostration. Five ounces of brandy three times daily. Five grains of carbonate of ammonia three times a day.

March 14th. Frequent dejections. Rectum to be washed out, followed by enema of starch and opium after every second dejection.

March 26th. There has been steady improvement since the 14th. There is still comparative dullness in lower half of left back, with respiration somewhat bronchial, and subcrepitant râles. A. M. Temperature 98.2°; pulse 75. P. M. Temperature 102.8°; pulse 128.

March 27th. Patient sat up five minutes. Had a severe rigor, from which he slowly reacted with stimulants. A. M. Temperature 99°. P. M. Temperature 99.3°.

March 28th. Very bad night. Frequent vomiting this morning. Stimulants omitted. Milk and lime-water diet. A. M. Temperature 105.2°; pulse 140. P. M. Temperature 97.5°; pulse 88.

March 29th. Pain severe in right chest. Temperature: A. M. 98.5°; P. M. 101°. Respiration normal.

March 30th. Temperature: A. M. 98°; P. M. 105.5°. Rigor in afternoon.

March 31st. Heart and lungs normal. Two grains of quinine three times daily. Liquid food and sherry wine. Temperature: A. M. 102.5°; P. M. 97.8°.

April 1st. Severe rigor this afternoon, followed by vomiting and great distress at epigastrium. Temperature: A. M. 100.5°; P. M. 103.4°. Quinine increased to eighteen grains daily, the last dose given six hours before time of expected rigor.

April 5th. No rigor till yesterday. Temperature: A. M. 98°; P. M. 98.7°.

April 8th. Diarrhœa of yellowish and offensive character. Pain in ileocœcal region. Breath very fœtid. Tongue coated and dry. Lungs normal. Now dull and sleepy. Temperature: A. M. 98°; P. M. 99.2°.

April 9th. Delirious at times. Passes his water in bed. Temperature: A. M. 97.7°; P. M. 97.7°.

April 10th. Gurgling and tenderness in ileo-cœcal region. Otherwise no change. Temperature: A. M. 98.2°; P. M. 99.6°.

April 11th. Dyspnœa. The right chest was found entirely dull, with bronchial respiration. Dullness through right back, with bronchial breathing in upper three fourths. Lower half left back coarse mucous râles. The extremities were cold. The patient evidently sinking fast. Temperature 95.8°; pulse 108; respiration 28. He died in the afternoon. No autopsy.

V. F. A. M., forty-five years, teamster, entered March 10th. Twenty years ago he had erysipelas and pneumonia. Otherwise healthy. Five days ago he had a severe chill, with pain in back and chest. Cough began that evening, and has continued, with little expectoration, but severe dyspnœa. Two days before entrance he was seized with a violent headache and diarrhœa. P. M. Temperature 103°; pulse 120; respiration 48.

March 11th. Lower half of right back dull, with bronchial respiration and broncophony, with occasional crepitant râles on full inspiration. Diarrhœa continues, with tenderness in ileo-cœcal region. Jacket poultice.

℞ Pil. opii gr. i. To be taken after every third dejection.

Milk diet. A. M. Temperature 101.6° ; pulse 104 ; respiration 32. P. M. Temperature 100.8° ; pulse 112 ; respiration 36.

March 13th. Cotton jacket. Diarrhœa ceased. A. M. Temperature 98.8° ; pulse 84 ; respiration 32. P. M. Temperature 99° ; pulse 80 ; respiration 24.

March 17th. Dullness much less. Occasional subcrepitant râles.

March 26th. Slight want of tone at base of left back. Respiration normal.

April 6th. Discharged, well.

VI. M. A., nineteen years, laborer, entered March 20th. Previous health good. Six days ago he took cold after exposure, followed by severe chill. Four days before entrance dyspnœa appeared, with cough and bloody expectoration. Now there is want of tone through lower half of left back, with bronchial breathing and coarse crepitant râles. Diarrhœa and epistaxis. Temperature 99.4° ; pulse 100 ; respiration 54. One drachm of fever mixture every four hours. Ten grains of Dover's powder at night. Milk diet.

March 26th. Delirium at night, and occasional attacks of diarrhœa have occurred since last record, but with constant improvement. The temperature is now normal. Appetite improving. The respiration is still somewhat tubular over base of lung, with subcrepitant râles.

April 10th. Condition has constantly improved. Is now well.

VII. M. D., twenty years, laborer, entered March 28th. Always well and strong till two weeks ago, when he took cold, followed by pain and stiffness in joints. Three days ago was seized with severe headache, distress in chest, and cough. P. M. Temperature 103.5° ; pulse 124 ; respiration 40.

March 29th. Delirium during night, with frequent diarrhœic discharges. Is now agitated, frequently screaming. There is tenderness and gurgling in the right iliac region. The chest is very sensitive. Relative dullness through right side, front and back, with occasional crepitant râles in upper third right front. Bronchial breathing in upper half right back, and crepitant râles. At base respiration is distant. A. M. Temperature 104° ; pulse 116 ; respiration 44. P. M. Temperature 104.2° ; pulse 116 ; respiration 40. Three grains of quinine three times daily. Ice bag to head. Milk diet. Tepid sponging.

March 30th. Want of tone in upper third right front, with crepitant râles throughout the area of dullness. Left front, respiration puerile. Dullness upper half right back, with marked bronchial breathing and broncophony. A. M. Temperature 104.2° ; respiration 42 ; pulse 112. P. M. Temperature 104.2° ; respiration 40 ; pulse 120. Jacket poultice. Dover's powder, five grains three times daily.

March 31st. During night diarrhœa again troublesome. Sputa now deeply stained with blood. Continue treatment, with starch and opium enemata. A. M. Temperature 102.4° ; pulse 112 ; respiration 36. P. M. Temperature 104.5° ; pulse 132 ; respiration 48.

April 4th. There has been a constant improvement since the last record. Temperature is now normal. Appetite good.

April 5th. Complains of sharp pain in right side of abdomen. Want of tone over right front ; bronchial breathing at base. Want of tone over right back, with pleuritic rubbing at base. A. M. Temperature 100.4°; pulse 88; respiration 28. P. M. Temperature 101.5°; pulse 85; respiration 30.

April 20th. Patient has constantly improved since the 5th. Temperature is normal. The respiratory sounds are now quite distinct and natural in right lung. Discharged, well.

VIII. T. C., age thirty-four, teamster, Maine, entered April 10th. Mother died with phthisis. He has always been healthy and strong, but has had several attacks of rheumatism. Four weeks ago was attacked with rheumatism; both knees, ankles, and left wrist were affected. One week ago, the rheumatism having nearly disappeared, he was sitting out in the sun, when he had a rigor. This has reappeared daily till entrance.

During the past week he has had frontal headache and several attacks of epistaxis. Frequent vomiting, with one or two loose dejections daily. Has had a cough for two weeks. P. M. Temperature 102.4°; pulse 112; respiration 32. Was sent to the hospital as a case of typhoid fever.

April 11th. A. M. Temperature 101.3°; pulse 128; respiration 40. The abdomen is not full nor tender. There is no gurgling in the ileo-cœcal region. Dullness over the whole of right front, with bronchial breathing, and at times a sibilant râle. Dullness over entire right back, with marked bronchial breathing over upper two thirds. Subcrepitant râles in lower third. Sputa viscid, tinged with blood. Jacket poultice to chest. Body sponged with tepid water twice daily. Milk diet. Brandy, one ounce, three times daily.

℞ Dover's powder, gr. v., every four hours.
℞ Quiniæ sulphatis, gr. iij., every four hours.

April 12th. A. M. Temperature 99.8°; pulse 95; respiration 40. P. M. Temperature 101.5°; pulse 126; respiration 46.

April 13th. Slight epistaxis this morning. Right lung flat from nipple to clavicle, with bronchial respiration and bronchophony, with coarse crepitation on inspiration. A. M. Temperature 99.4°; pulse 111; respiration 33. P. M. Temperature 99.3°; pulse 123; respiration 32.

April 15th. Has taken milk very freely since entrance, and has improved till to-day, when he seems sicker. A. M. Temperature 102°; pulse 106; respiration 35. P. M. Temperature 102°; pulse 120; respiration 38.

April 16th. Left side of face is very much swollen, pitting deeply on pressure. He slept well last night. Passed a loose dejection in bed. Dullness, bronchial respiration, and subcrepitant râles through right front. Poultice to face. A. M. Temperature 98°; pulse 123; respiration 36. P. M. Temperature 101.5°; pulse 140; respiration 36.

April 17th. Six diarrhœic discharges since yesterday. Face is more swollen. He is dull, though rational. A. M. Temperature 99.6°; pulse 123; respiration 36. P. M. Temperature 100.2°; pulse 146; respiration 47. Brandy, nine ounces, during the day.

April 18th. Face more swollen. Exploratory incision did not find pus. Diarrhœa continues. Patient became weaker, and died.

All the cases of pneumonia, excepting two, that have entered this service during the past eight weeks, have presented typhoidal symptoms. During the same period hæmorrhages have been markedly frequent, no matter what the primary disease may have been. HALL CURTIS, M. D.

LETTER FROM ROME.

ROME AND THE TIBER.

Messrs. Editors, — Conspicuous among the natural hindrances to the well-being of Rome are the inundations of the Tiber, which have for ages brought upon the city periodical visitations of terror and misery, and which little or nothing has ever been done to prevent or alleviate. Unhappily for the present government, its advent in Rome was quickly succeeded by one of the most destructive of these floods that had been known for centuries, and their duties and responsibilities towards the capital in this matter were impressed upon the ministry with a force that could not be ignored. The Tiber has never been a beneficent stream, and the prayers of the Romans of old were far more frequently addressed to avert the wrath of a malignant deity than to offer pæans of praise for gracious favors. Nor did nature endow it with winning attributes or features pleasing to the eye. In spite of the halo cast about it by the melodious raptures of poetry and ages of song and story, in our day the ordinary vision sees but little to wing the pen or excite the lyre. At times sluggishly dropping from level to level of diluted mud, and insidiously undermining either shore, unnavigable and undrinkable, it finally taints the blue of the Mediterranean far out into its depths. At times rising suddenly in turbulent and tumultuous wrath, restrained by no limits, it deals in every direction unstinted havoc and desolation, and covers the streets of Rome with the plunder of the Appenines. From the earliest records it has been an object of dread, and the historians of every reign have borne graphic testimony to its ravages. During the old Roman supremacy these were far more destructive than in modern days, and while perusing the stirring details transmitted by Dion Cassius, Tàcitus, and the younger Pliny, one is forced to the reflection, if all the power of the empire in its prime, with boundless command of men and treasure, could do absolutely nothing to curb the encroachments of the Tiber, what can be expected from a kingdom in its infancy, of limited resources, and with unnumbered demands from every quarter for aid which cannot be refused?

The origin of these floods is to be sought in an unfortunate union of unfavorable conditions, and is due partly to the position of Rome, partly to changes for the worse caused by the hand of man, and partly to the peculiar characteristics of the river. The site originally chosen was in places low and marshy, and for this disadvantage there would appear to be no remedy but that which has gradually developed itself in the rise of the modern capital to a higher and safer level, many feet above that of the Imperial City on whose decaying ruins it has been built. To this it is largely owing that the inundations of later times have been less widely extended than those which preceded them.

Among the changes resulting from human agency a significant rank is held by the barrenness of the hills and mountain slopes among which the Tiber takes its rise, and which ages ago were stripped of the trees and shrubs whose roots once absorbed a portion of the heavy and torrential rains, while they allowed the rest to find a quiet and gentle outlet into their natural channels. These waters, being now unrestrained, gather quickly, like warring squadrons, and, acquiring fresh force with every movement, rush on with irresistible impetus. Could these sterile declivities be now clothed with vegetation, slowly though it might done, an ever-increasing and ultimately permanent remedy would be provided, and that without great expense or danger of loss. Trees are everywhere the peacemakers of the earth, and it is their mission to temper the more fiery moods of nature. They extort melodious praise from elemental discord, and transmute black and impending clouds into green and dewy fragrance. Nowhere is their beneficence more apparent than when checking the flow of mighty waters.

It will, of course, be seen that this relief, though promising well for the future, offers but a doubtful security against the pressing perils of the present. Chief among these is that arising from the slight fall of the Tiber, which from many miles above the capital descends to the sea at the rate of only eight inches to the mile, and thus renders any rapid rise of its waves more and more unable to find an outlet. Under these circumstances the influence of the Mediterranean is quickly felt at Rome, and a flood needs but to happen at the same time with a high and adverse wind in order to drive back the swelling turmoil with fatal effect. This combination, fortunately, seldom happens, though it did occur at the advent of Victor Emmanuel, whose troops had hardly located themselves in Rome, in September, 1870, when in the following December came the terrible deluge, and the resources and abundant charities of the whole nation were applied for the relief of unwonted distress.

Naturally enough this disaster was the source of many specious plans to prevent its repetition, and a commission of able engineers was soon appointed to select one which might be both practicable and effective. The members of this profession in Italy are known to be among the most skillful in the world, and few excel them in all that concerns the regulation of water in motion; but it was to the patriotism and intelligence of Garibaldi, and his eagerness to add one of the victories of peace to those which he had already gained in war, that was due the most popular and promising of all the schemes suggested. This embraced not only the relief of the city from floods, but a more direct communication between it and the sea, where a new harbor would be founded which would rapidly develop its increasing trade and commerce. This plan was to be consummated through the agency of a broad canal which was to intercept the course of the Tiber at some distance above Rome, and thence be conducted to Fiumicino on the edge of the Mediterranean, partly by the reopening of another canal, now fallen into decay, which was made for a similar purpose during the reign of Claudius in the middle of the first century. Of this auspicious design there is no room here to give the details, which are fully set forth in Garibaldi's appeal in its behalf to his countrymen, or, more correctly speaking, to the world. That it will ever be carried into execution there is, unhappily, little hope. Apart from other considerations, the cost alone would offer an obstacle of the most formidable kind. The original estimates were sixty millions of francs, and this amount would in all probability be increased to at least a hundred by the time the works were finished. Even the wealthiest nations would hesitate at such an expenditure, and still more Italy, where the pressure of taxation is already enormous, while the increase necessitated by such an undertaking would be intolerable. Under this aspect few would hastily blame even the victims of the Tiber from bearing the ills they have, rather than fly to others that they know not of. Surely this would be the true philosophy.

If we leave pecuniary disabilities out of the account, however, Garibaldi's device is dubious under every aspect, and even his warmest admirers are constrained to admit that its benefits would be uncertain as to their immediate effect, and still more so in the future. Any works designed to divert from such a capricious stream as the Tiber the enormous volume of water that may accumulate in a few hours must not only be of vast size and cost, but even then it would be very doubtful if they could accomplish what was expected of them. The onward rush of a swollen river is one of the most majestic and untamable forces of nature, and it is precisely at the moment when structures built to resist this are the most needed that they are the most powerless. A gradual rise might be as gradually mitigated, but the impetuous pressure of sudden fury scorns all restraint. The truth of this was tested by the old Roman method of dealing with the evil to which allusion was made above, and "the conservators of the bed and shores of the Tiber" had little reason to consider their faith as justified by their works. And the results would doubtless be the same as to Garibaldi's canal. In the matter of the projected port it is not difficult to comprehend that however creditable to the ambitious pride of a patriot or the energy of a countryman of Michael Angelo and Leonardo da Vinci, it must be regarded as hardly practicable. It should be remembered that Rome is no longer the city of the Cæsars, the nucleus of a boundless empire, exacting tribute from the whole world, nor is it even the thrifty centre of a prosperous community. Living on the hoarded grandeur of the past, hardly yet emerging from the decay of ages, with the desolation of eternal solitude stretching from it on every side, there is no trade to support, nor production to attract, an extensive commerce, nor can there be for many a generation. And even did the harbor which Garibaldi so enthusiastically forsees spring into existence, his canal would but hasten its destruction ere it were well finished. The Tiber holds in solution an immense quantity of alluvium which it deposits incessantly on every available spot, and the water drawn off by this means would not be slow to fill up the intended port with ever thickening strata of mud and refuse. Thus it was in the time of Claudius, whose new canal so speedily ruined his harbor that Trajan was obliged to abandon it within sixty years from its completion, and found a second nearer the sea, considering this more politic than to wage an endless warfare with the Tiber and carry on forever the repairs and dredging which had been inevitable from the first.

From these few suggestions, cursory and imperfect as they are, it will easily be seen that the difficulties in the way of moderating the encroachments of the Tiber are many and great, and history would warrant us in drawing the conclusion that every effort towards this end must eventually be futile. All experience goes to prove that a river is a terrible foe to deal with, whose rapacity is exorbitant, and whose apparent conquest but reveals fresh resources and fresh attacks under unsuspected shapes. It is the tendency of every stream to follow the course laid out for it from of old, and to return to its normal state after every human interruption. No lasting change can be impressed upon it except by the recurrence of one of those mighty convulsions which attended its birth. Should the attempt be made to deepen its bed, the *débris* borne down from the mountains soon obliterates all trace of man's handiwork and restores its former level. Should it be widened on either shore, black and barren banks of slime left by its subsidence swelter in the sun for three fourths of the year, breeding vermin and malaria. Thus it would certainly be with the Tiber, and the commissioners appointed to control its vagaries will do wisely to undertake none of those stupendous projects which even the might of their predecessors failed to achieve with success. In all probability they will do nothing more than to recommend the erection of walls and quays along the more exposed localities and the removal of numerous obstructions which time and decay have left in the channel, and which, though not very important, yet offer a certain check to the course of the current. Among these are the remains of the piers that supported the Sublician Bridge in those grand and ancient days when the unaided valor of one man thwarted the progress of an army and secured for Horatius Cocles that fame which envious oblivion yields to none but the greatly daring. A.

ROME, *March* 31, 1876.

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MESSRS. EDITORS, — In the medical notes of May 4th, you announce a method of treatment for prurigo (pruritus ?) senilis. As this form of pruritus is apt to affect large districts of the skin and to be marked by numerous excoriations, will you inform us if it be safe to "smear the surface with citrine ointment" as generally and frequently as may be required to permanently control so stubborn an affection ?

BOSTON, *May* 5, 1876.

BOSTON SOCIETY FOR MEDICAL OBSERVATION. — A regular meeting of the Society will be held on Monday evening, May 15th, at eight o'clock, at the hall in Temple Place. Subject of the paper to be read by Dr. T. B. Curtis will be Two Cases of Lithotrity.

BOOKS AND PAMPHLETS RECEIVED. — Diseases of the Skin. By Henry G. Piffard, A. M., M. D. With Illustrations. London and New York: Macmillan & Co. 1876.

Proceedings of the Medical Society of the County of Kings. Brooklyn, N. Y., May, 1876.

On the Treatment of Chronic Eczema by Glycerole of Subacetate of Lead. By Balmanno Squire, M. B., London. (Reprinted from the Medical Times and Gazette.) 1876.

Ninth Annual Report of the Board of Health to the City Council of the City of Dayton, for the Year ending February 29th, 1876. Dayton, Ohio.

Laceration of the Soft Parturient Passages. By M. F. Bridgman, M. D. Boston. 1876.

Seventh Annual Report of the State Board of Health of Massachusetts. (Advanced copy.)

Fifth Annual Report of the Trustees of the City Hospital at Worcester, for the Year ending November 30, 1875.

De la Valeur de l'Hystérotomie dans le Traitement des Tumeurs fibreuses de l'Utérus. Par Dr. Samuel Pozzi. Paris: Masson. 1875.

The Pathology and Treatment of Childbed. By Dr. F. Winckel. From the Second German Edition. Translated by James R. Chadwick, M. D. Philadelphia: Henry C. Lea. 1876.

MILITARY APPOINTMENTS. — The following commissions have been issued from the office of the adjutant-general the past week: Reappointments under act of 1876, from April 29th. First corps of Cadets, major and surgeon, William L. Richardson, of Boston; Second corps of Cadets, from May 3d, major and surgeon, William F. Southard, of Templeton.